

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims

1. (Currently Amended) A method of inhibiting an allergic reaction ~~desensitising a human patient~~ to a polypeptide allergen in an individual ~~the method~~ comprising administering to the individual patient ~~a~~ an isolated peptide derived from the allergen, wherein
 - (i) the peptide is able to bind a particular restriction to a MHC Class II molecule possessed by the individual patient ~~can be demonstrated for the peptide,~~
 - (ii) ~~wherein in the method~~ the peptide induces a late phase response in the individual patient, and
 - (iii) ~~wherein~~ the peptide has a length of 5 to 50 amino acids ~~and is not a Fel d I derived peptide. and~~
 - (iv) the polypeptide allergen is an allergen selected from the group consisting of grass, tree and weed (including ragweed) pollens; fungi and moulds; foods; stinging insects, the chironomidae (non-biting midges); spiders, housefly, fruit fly, sheep blow fly, screw worm fly, grain weevil, silkworm, honeybee, non-biting midge larvae, bee moth larvae, mealworm, cockroach, larvae of Tenibriomolitor beetle and a mammal other than a cat, such as dog, horse, cow, pig, sheep, rabbit, rat, guinea pig, mice and gerbil.
2. (Currently Amended) The method of claim 1, ~~A method according to Claim 1~~ wherein the peptide is included in a composition containing a plurality of peptides. ~~derived from the said allergen.~~
3. (Currently Amended) The method of claim 2, ~~A method according to Claim 2~~ wherein the plurality of peptides ~~derived from said allergen~~ includes a peptide which binds to a MHC for which restriction to Class II DR molecules ~~molecule~~ selected from the group consisting of DR2, DR3, DR4 and DR7 ~~can be demonstrated, provided that such peptides can be derived from the allergen.~~

4. **(Currently Amended)** The method of claim 1, A method according to Claim 1 wherein the individual patient possesses ~~any one of the~~ a MHC Class II DR molecule selected from the group consisting of molecules DR2, DR3, DR4, and ~~or~~ DR7.

5. **(Currently Amended)** The method of claim 1, A method according to Claim 1 wherein the individual patient possesses the MHC Class II molecule DR4.

6-15. **(Canceled)**

16. **(Withdrawn)** A method according to Claim 15 wherein step (2) is carried out prior to step (3) and only candidate peptides which demonstrate restriction to the particular MHC Class II molecule are selected for testing in step (3).

17. **(Withdrawn)** A method according to Claim 16 wherein candidate peptides capable of inducing a late phase response and which demonstrate restriction to the particular MHC Class II molecule are selected as an immunotherapeutic agent.

18. **(Withdrawn)** A method according to Claim 15 wherein determination of whether the candidate peptide demonstrates restriction to the said MHC Class II molecule is by using a T cell proliferation assay.

19. **(Withdrawn)** A method according to Claim 15 wherein the allergen is selected from the group as defined in Claim 13.

20. **(Withdrawn)** A method according to Claim 15 wherein in step (2) determination of whether the candidate peptide demonstrates restriction to the said MHC Class II molecule is by using the patient's cells in a T cell proliferation assay, and in step (3) determining whether the candidate peptide is able to induce a late phase response in the patient.

21. **(Withdrawn)** A method according to Claim 15 wherein the MHC molecule is any one of HLA-DR, HLA-DP, HLA-DQ, or subclasses thereof.

22. **(Withdrawn)** A peptide when selected by Claim 15.
23. **(Withdrawn)** A database of peptide characterised according to their ability to bind an MHC Class II molecule and induce a late phase response in an individual possessing the said MHC class II molecule.
24. **(Withdrawn)** A peptide listed in a database according to Claim 23, for use in therapy.
25. **(Withdrawn)** A method for selecting a peptide for use as an immunotherapeutic agent for desensitising a patient to an allergen comprising the steps of: a) tissue-typing the patient to determine MHC Class II type; and b) selecting, from a database of peptide which are known to bind to particular MHC Class II molecules and induce a late phase response in an individual possessing such MHC Class II molecules, one or more peptides capable of binding to the MHC Class II molecules possessed by the patient.
26. **(Withdrawn)** A method of determining an initial dose of an immunotherapeutic peptide for desensitising a patient to a polypeptide allergen, which peptide is derived from the allergen and wherein restriction to a MHC Class II molecule possesses by the patient can be demonstrated for the peptide allergen, which peptide is derived from the allergen and wherein restriction to a MHC Class II molecule possesses by the patient can be demonstrated for the peptide and the peptide is able to induce a late phase response in an individual who possesses the said MHC molecule, the method comprising (1) determining the dose which is able to generate an observable late phase response in a given proportion of individual who possesses the said MHC molecule and in whom the peptide is able to induce a late phase response an (2) selecting a lower does which is incapable of inducing an observable late phase response in substantially all individuals who posses the said MHC molecule and in whom the peptide is able to induce a late phase response.
27. **(Withdrawn)** A method according to Claim 26 wherein in step (1) the given proportion is 50%.

28. **(Withdrawn)** A method according to Claim 26 wherein the lower does is 0.01% of the dose which is able to generate an observable late phase response in the given proportion of individuals.

29. **(Withdrawn)** A method according to Claim 26 wherein in steps (1) and (2) the peptide is included in a plurality of peptides derived from the said allergen.